

Model Number
66102APZ1

ICP® LOW-PROFILE TO-5 ACCELEROMETER

Revision: B
ECN #: 49711

	ENGLISH	SI	
Performance			
Sensitivity(± 20 %)	10 mV/g	1.02 mV/(m/s ²)	[6][1]
Measurement Range	± 500 g	± 5,000 m/s ²	
Frequency Range(± 3 dB)	0.5 to 10 kHz	0.5 to 10 kHz	[3][7]
Resonant Frequency	> 25 kHz	> 25 kHz	[7]
Broadband Resolution	0.0018 g rms	0.017658 m/s ² rms	[4]
Non-Linearity	≤ 1 %	≤ 1 %	[2]
Transverse Sensitivity	≤ 7 %	≤ 7 %	
Environmental			
Overload Limit(Shock)	5,000 g pk	49k m/s ² pk	
Temperature Range(Operating)	-65 to +185 °F	-54 to +85 °C	
Temperature Response	See Graph	See Graph	[4]
Electrical			
Settling Time(within 1% of bias)	≤ 2 sec	≤ 2 sec	
Discharge Time Constant	≥ 0.3 sec	≥ 0.3 sec	
Excitation Voltage	18 to 28 VDC	18 to 28 VDC	
Constant Current Excitation	2 to 20 mA	2 to 20 mA	
Output Impedance	< 100 Ohm	< 100 Ohm	
Output Bias Voltage	8 to 12 VDC	8 to 12 VDC	
Spectral Noise(10 Hz)	19 µg/√Hz	186.4 (µm/sec ²)/√Hz	[4]
Spectral Noise(100 Hz)	8 µg/√Hz	78.5 (µm/sec ²)/√Hz	[4]
Spectral Noise(1 kHz)	5 µg/√Hz	49.1 (µm/sec ²)/√Hz	[4]
Physical			
Size - Lip Diameter	0.36 in	9.1 mm	
Size - Height	0.26 in	6.6 mm	
Weight	0.08 oz	2.2 gm	
Mounting	Adhesive/Solder	Adhesive/Solder	
Sensing Element	Ceramic	Ceramic	
Sensing Geometry	Shear	Shear	
Housing Material	Stainless Steel	Stainless Steel	
Sealing	Welded Hermetic	Welded Hermetic	
Electrical Connector	Header Pins	Header Pins	
Electrical Connection Position	Bottom	Bottom	
Electrical Connections(Pin 1)	Signal / Power	Signal / Power	
Electrical Connections(Pin 2)	Neg (-) Ground	Neg (-) Ground	
Electrical Connections(Pin 3)	No Connection	No Connection	

OPTIONAL VERSIONS
Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.

HT - High temperature, extends normal operation temperatures
Temperature Range -65 to 250 °F -54 to 121 °C

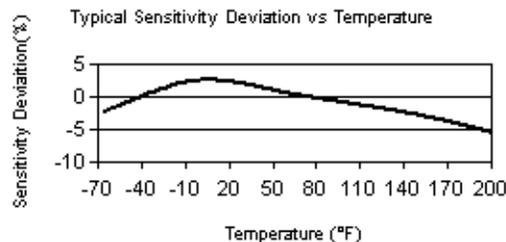
RH - RoHS Compliant

NOTES:

- [1] Conversion Factor 1g = 9.81 m/s².
- [2] Zero-based, least-squares, straight line method.
- [3] The high frequency tolerance is accurate within ±10% of the specified frequency.
- [4] Typical.
- [5] See PCB Declaration of Conformance PS023 or PS060 for details.
- [6] Positive output along Z-axis (in upward direction when pin mounted).
- [7] Performance depends on mounting

SUPPLIED ACCESSORIES:

Model ICS-2 NIST-traceable single-point amplitude response calibration at 6000 cpm (100 Hz) for each axis (1)



Entered: LK	Engineer: YHK	Sales: MC	Approved: NJF	Spec Number:
Date: 07/03/2019	Date: 07/03/2019	Date: 07/03/2019	Date: 07/03/2019	47362

IMI SENSORS
A PCB PIEZOTRONICS DIV.
3425 Walden Avenue, Depew, NY 14043

Phone: 800-959-4464
Fax: 716-684-3823
E-Mail: imi@pcb.com



All specifications are at room temperature unless otherwise specified.
In the interest of constant product improvement, we reserve the right to change specifications without notice.
ICP® is a registered trademark of PCB Piezotronics, Inc.